

Directions: All questions must be completed on loose leaf. A calculator is allowed. Please reduce any fractions to lowest terms. Place a box around your final answer. **ALL WORK MUST BE SHOWN FOR FULL VALUE.**

Part A:**/12**

1) Evaluate each of the following: (2 marks each)

a) $\sqrt{\frac{64}{25}}$

b) $\frac{5}{4} - \frac{11}{8}$

c) $-1.8 \times (-0.6)$

d) $\frac{10}{12} \div \left(-\frac{4}{3}\right)$

2) Write two rational numbers between the two numbers below. (value 2)

$$-\frac{6}{3}, -\frac{4}{3}$$

3) Is the following fraction a perfect square? Explain how you know. (value 2)

$$\frac{72}{98}$$

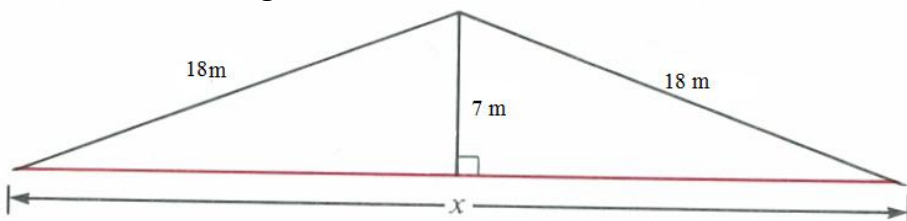
Part B: Please answer all questions. 3 marks each**/12**

1) Find a) $\sqrt{12100}$, b) $\sqrt{1.44}$ c) $\sqrt{\frac{200}{338}}$

2) A carpenter has 64m of baseboard. He installs $\frac{1}{4}$ of the baseboard in one room. He installs $\frac{5}{8}$ of the original amount of the baseboard in another room. How much baseboard does he have left?

3) The temperature in Toronto, ONT, at 4:00 p.m. was 6°C. The temperature drops 1.5°C each hour. What will the temperature be at 10:00 P.M.? Justify your answer.

- 4) Find the length, x , of this roof truss.

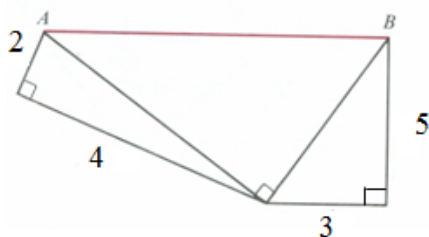


Part C: Complete question 1 and choose any 2 of the remaining 3 questions.
4 marks each /12

- 1) Solve:

$$-\frac{4}{5} \div \left[\frac{1}{2} + \left(-\frac{1}{6}\right)\left(-\frac{1}{6}\right) \times \frac{1}{4} \right]$$

- 2) In the diagram, find the length of AB



- 3) Which number, $\sqrt{36} + \sqrt{121}$ or $\sqrt{36+144}$ is greater? Explain your reasoning.
- 4) A student evaluated the following expression and the answer was 3.67 to the nearest hundredth. Another student evaluated the expression and the answer was 2.89 to the nearest hundredth.

$$\frac{21.6 - (-4.9) \div 0.7 + 5.8}{(-2) \times (-4.7) + 2.5}$$

- a) Which answer is correct?
b) What mistake did one student likely make?